REMARKS

Claims 1-18, 37-41, 44 and 55-69 are currently pending in the captioned patent application, of which Claims 1, 7, 37, 55, 68 and 81 are independent claims. Claims 1, 7, 37, 55 and 68 have been amended, and Claim 81 has been added as a new independent claim. For at least the reasons set forth below, applicant respectfully requests reconsideration of the Office Action objections and rejections.

Rejections in view of Raines / Gargas

Claims 1, 4-6, 55 and 58-68 stand rejected under 35 U.S.C. §102(b) in view of a patent issued to Raines (U.S. Pat. No. 4,246,932); also, Claims 7, 10-13, 16-18, 37, 40, 41 and 44 stand rejected under 35 U.S.C. §103 as obvious in view of Raines. In addition, Claims 2, 3, 8, 9, 14, 15, 38, 39, 56, 57 and 69 stand rejected in view of a proposed combination of Raines and a patent issued to Gargas (U.S. Pat. No. 4,684,334).

Raines discloses a valve assembly for use in the medical field (i.e., in connection with a syringe S). In an aspiration procedure involving the Raines valve assembly, the syringe is applied to create a pressure gradient in the interior of the assembly. At a predetermined level, the pressure gradient causes a second disc 150 to bias in a flexed position (see Figure 2) that permits fluid communication between the interior of the valve assembly 10 with tubing C via a tubing connector 20. The pressure gradient causes flow through the tubing connector 20 into the interior of the assembly 10. The flow established by such pressure gradient through the tubing connector 20 is around the second disc 150 and into cannula K in the interior of the assembly 10.

This pressure gradient also biases a first disc 152 onto a disc seat defined by the edges of counterbores 108 and 108' (see Figure 3). Thus, in the aspiration step, the second valve 150 is open and first valve 152 is closed. In this manner, fluid can be drawn from a source (not shown) into the assembly 10 (see Raines, col. 4, line 50 to col. 5, line 14).

Conversely, an injection procedure is carried out in Raines by reversing the above-described aspiration procedure. The pressure gradient established in the interior of the assembly 10 by injecting the syringe S acts on the valve discs 150 and 152. The pressure gradient moves the discs such that the second disc 150 abuts the rim 96 and thus occludes the bore 24, and, when the pressure is sufficient, moves the first disc 152 away from the disc seat to establish flow path 200' (see Figure 4). In this manner, fluid passes through the flow channel 200' and moves into a bore 124. The fluid drawn into the assembly 10 by the aspiration procedure is thus forced into a receiver (not shown) via the bore 124 by applying the injection step. In the injection step, the second valve 150 is closed and the first valve 152 is open (see Raines, col. 5, lines 15-37).

In contrast to Raines, amended Claim 1 recites, in pertinent part:

> a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with at least a portion of a fluid system, wherein the application of positive pressure causes fluid to flow from a common refill/evacuation location through said first check valve into said fluid system;
>
> a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system,

> wherein the application of negative pressure causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location;

The Raines device does not disclose at least "a first check valve structured to permit fluid flow...wherein the application of positive pressure causes fluid to flow from a common refill/evacuation location through said first check valve into said fluid system" and "a second check valve...further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location" as claimed in Claim 1. A claim rejection based on anticipation under §102 requires that a single prior art reference disclose each and every element of the claimed invention. *See* MPEP § 2131 (stating that a claim is anticipated only if each and every element as set forth in the claim is disclosed in a single prior art reference).

As stated by the examiner in the Office Action:

> The patent to Raines discloses...a "valve assembly comprising: a first check valve (outlet disk 152) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (152), further comprising an outlet (124) of said first check (152) valve being in fluid communication with at least a portion of a fluid system (represented by conduit C'); a second check valve (inlet disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), said second check (150) valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (150); and, an inlet/outlet port (channel 100 and bore 60) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at a common refill evacuation location (100)" as recited.

In attempting to track the Examiner's argument, which tries to map the elements of Claim 1 to Raines, applicant assumes hypothetically (and merely for the sake of considering the Examiner's argument) that the outlet disk 152 of Raines is the equivalent of the first check valve, and the inlet disk 150 of Raines is the equivalent of the second check valve. Referring to Figures 2 and 3 of Raines and applying the Examiner's interpretation of Raines to the language of amended Claim 1, Raines does not teach all of the elements of Claim 1.

Raines may appear to fit the language of a portion of Claim 1. For example, the outlet disk 152 (first check valve) may be structured to permit fluid flow therethrough in response to application of positive pressure (from the syringe S being pushed forward) at the inlet of the outlet disk 152 (first check valve), further comprising an outlet 124 of the outlet disk 152 (first check valve) being in fluid communication with at least a portion of a fluid system (represented by conduit C'), wherein the application of positive pressure (from the syringe S being pushed forward) causes fluid to flow from the channel 100 (common refill/evacuation location) through said outlet disk 152 (first check valve) into said fluid system (represented by conduit C'). This appears to occur during the injection procedure of Raines.

Although Raines, as interpreted by the Examiner, appears to follow the language from a portion of Claim 1, clearly Raines does not teach all of the elements of Claim 1. Attempting to track the language of amended Claim 1, the inlet disk 150 (second check valve) may have an outlet in fluid communication with said inlet of the outlet disk 152 (first check valve), the inlet disk 150 (second check valve) may be structured to permit fluid flow therethrough in response to application of negative pressure (from the syringe S being withdrawn) at the outlet of the inlet disk 150 (second check valve). However, in this

hypothetical interpretation, Raines clearly does not disclose an inlet of the inlet disk 150 (second check valve) being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure (from the syringe S being withdrawn) causes fluid to flow from said fluid system (represented by conduit C') through the inlet disk 150 (second check valve) into the channel 100 (common refill/evacuation location). Therefore, this hypothetical application of Raines does not teach all of the elements of Claim 1.

Assuming next, hypothetically and merely for the sake of attempting to map the Examiner's argument to Claim 1, that the inlet disk 150 of Raines is the equivalent of the first check valve of Claim 1, and the outlet disk 152 of Raines is the equivalent of the second check valve of Claim 1, Raines still does not teach all of the elements of Claim 1. In this configuration, the inlet disk 150 (first check valve) may be structured to permit fluid flow therethrough in response to application of positive pressure (from the conduit C) at the inlet of the inlet disk 150 (first check valve), further comprising an outlet of the inlet disk 150 (first check valve) being in fluid communication with at least a portion of a fluid system (represented by the channel 100 and the bore 60), wherein the application of positive pressure (from the conduit C) causes fluid to flow from the conduit C (common refill/evacuation location) through said inlet disk 150 (first check valve) into said fluid system (represented by the channel 100 and the bore 60). Attempting to map this configuration to Claim 1 fails because the conduit C is clearly not a common refill/evacuation location.

In addition, in this configuration, the outlet disk 152 (second check valve) does not have an outlet in fluid communication with the inlet of the inlet disk 150 (first check valve). The outlet disk 152 (second check valve) may be structured to permit fluid flow therethrough in

response to application of negative pressure at said outlet of the inlet disk (second check valve), although it is unclear how negative pressure would be applied from conduit C', given that conduit C' is the point of injection in Raines. The inlet of the outlet disk 152 (second check valve) may be in fluid communication with at least a portion of a fluid system (represented by the channel 100 and the bore 60), but the application of negative pressure (from the conduit C') does not cause fluid to flow from said fluid system (represented by the channel 100 and the bore 60) through the outlet disk 152 (second check valve) into the conduit C (common refill/evacuation location).

Therefore, even when making certain hypothetical assumptions to see how the Examiner has attempted to map the teachings of Raines to the elements of Claim 1, Raines nonetheless does not disclose all of the elements of Claim 1.

The structure of the assembly of Claim 1 functions to permit both fluid evacuation operations and fluid refill operations to be accomplished through the "inlet/outlet port" at the "common refill/evacuation location" of the assembly. As noted in applicant's specification, operation of the claimed valve assembly provides that "different types of fluids (e.g., without limitation, engine oil, transmission fluid, hydraulic fluid, coolants, and other machine fluids) can be alternately and/or sequentially evacuated/refilled" (see para. 109). It can be seen that there are at least two kinds of fluid flows that can be passed through the "common refill/evacuation location" of Claim 1, including fluid flow associated with a refill operation and fluid flow associated with an evacuation operation.

In contrast, the Raines assembly only functions to provide fluid flow from a source (which is not shown or described in Raines), through an interior of its assembly 10, to a

receiver (also not shown or described in Raines). There is no teaching or suggestion in Raines of performing an evacuation procedure, for example, by forcing the fluid to flow from the receiver back to the source through the fluid system. To accomplish this, Raines would need to provide an integrated fluid system that directly connects the receiver to the source other than through the assembly 10. Raines cannot function to perform the kinds of fluid evacuation operations that can be accomplished by the assembly recited in Claim 1.

Claims 2, 3, 8, 9, 14, 15, 38, 39, 56, 57 and 69 stand rejected under 35 U.S.C. §103 as obvious in view of a proposed combination of Raines and Gargas. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). As admitted by the Examiner, "Raines discloses all the claimed features with the exception of having 'said fluid system portion includes at least a pre-filter portion...being in fluid communication with at least one fluid filter.'" The device disclosed in Gargas is an "[i]nlet valve assembly for a paint [s]prayer." *See* Gargas at Abstract. Although Gargas discloses a filter element downstream of a pump assembly, the patent issued to Gargas (just as Raines) does not disclose and is clearly incapable of providing both a refill and an evacuation procedure.

The Examiner states that it would have been obvious "to employ in Raines a filter element downstream of the pump assembly...for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas." The assembly of Raines is used in medical applications (e.g., injections of medication). It would seem highly unlikely (e.g., not obvious) to use a filter to remove contaminates from medication. If proposed modification would render the

prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). *See* MPEP 2143.01

As disclosed in Raines, the "Objects of the Invention" include providing a medical valve assembly which: 1) is efficiently manufacturable; 2) is less costly to manufacture than heretofore known devices; 3) has fewer parts than heretofore known devices; and 4) is quickly assembled. *See* Raines at lines 5-16. To provide a filter to the device disclosed in Raines would destroy the above described "Objects of the Invention," thus rendering Raines unsatisfactory for its intended purpose.

Each of independent Claims 7, 37, 55 and 68 are allowable for at least reasons analogous to those described above with regard to Claim 1. Furthermore, Claims 2-6, 8-18, 38-41, 44, 56-67 and 69 depend from, either directly or indirectly, one of independent Claims 1, 7, 37, 55 or 68, and are therefore allowable for the same reasons as the independent claims.

Miscellaneous

Applicant submits that the dependent claims pending herein are allowable at least by virtue of their dependency on independent claims which, as applicants describe above, are patentable over the cited references. Applicant reserves the right, however, to make supplemental arguments as may be necessary, because the dependent claims of the present application include additional features that further distinguish the claims from the cited references. A detailed discussion of these distinctions is believed to be unnecessary at this time in view of the fundamental distinctions already set forth in the above remarks.

Interview Summary

The undersigned representative would like to thank Examiner Rivell for the courtesy of a phone interview conducted on September 6, 2007, to discuss the pending claims of the captioned patent application.

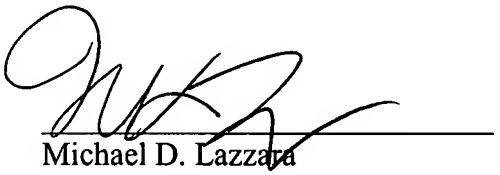
In summary, proposed amendments to Claim 1 were discussed with the Examiner in view of Raines (U.S. Pat. No. 4,246,932). In the interview, arguments were presented to the Examiner to explain how Claim 1 distinguishes over the teachings of Raines, whether taken alone or in combination with a patent issued to Gargas (U.S. Pat. No. 4,684,334). In particular, applicant noted that the elements of proposed Claim 1 were not taught, suggested or disclosed by Raines. The Examiner considered the proposed language of Claim 1 anticipated by Raines as currently applied. Applicants expressed concern that the Raines device could not be substituted for a valve assembly structured in accordance with Claim 1 and still operate properly to perform the functions of the valve assembly of Claim 1. The Examiner seemed to agree with this concern but maintained his belief that the current claims do not distinguish over Raines.

Upon conclusion of the interview, no resolution as to allowable subject matter was achieved; however, the Examiner agreed to consider applicant's arguments in association with taking further action on the application.

SUMMARY

Based on the foregoing remarks, applicant respectfully requests reconsideration and allowance of all pending claims of the present application. Any questions or issues regarding this response are invited to the attention of the undersigned representative by telephone or e-mail, so that such questions or issues can be addressed expeditiously.

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit:	3753	
Examiner:	John A. Rivell	
In re Application of:	John K. Apostolides	METHODS AND SYSTEMS FOR PERFORMING, MONITORING AND ANALYZING MULTIPLE MACHINE FLUID PROCESSES
Serial No.:	10/820,551	
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